PHENIX

TECHNICAL SUPPORT 2011

PHENIX WEEKLY PLANNING

11/10/2011

Don Lynch

PHENIX

TECHNICAL SUPPORT 2011

This Week

- Continue RPC1 N commissioning
- Start MuTr station 2 & 3 North terminators & Clamp-on re-capacitors in MMN
- Start MuTr station 2 & 3 South Clamp-on re-capacitors in MMS
- VTX repairs/upgrades/reassembly continues
- Continue FVTX/VTX integration and survey
- FVTX rack assembly continues First rack is done
- Move CM north Done
- Install scaffolding in south station 1 Done
- Start DC east repairs
- Prep BBC south cables for RPC1S installation
- Begin RPC1 South installation
- MPC South troubleshooting
- BBC South installation
- Continue design and procurement for RPC3 shielding, Hodoscope, AH Crane upgrade & repairs, and R134A shed
- Friday 11/11/11 is Veteran's Day, a Lab holiday

PHENIX

TECHNICAL SUPPORT 2011

Next Week

- Continue RPC1 N commissioning
- Continue MuTr station 2 & 3 North terminators & Clamp-on re-capacitors in MMN
- Continue MuTr station 2 & 3 South Clamp-on re-capacitors in MMS
- VTX repairs/upgrades/reassembly continues
- Continue FVTX/VTX integration and survey
- FVTX rack assembly continues
- Continue DC East Repairs
- Continue RPC1 South installation
- MPC South troubleshooting
- BBC South installation
- Continue design and procurement for RPC3 shielding, Hodoscope, AH Crane upgrade & repairs, and R134A shed

General Tasks

TECHNICAL SUPPORT 2011

• Remaining Work Permits needed: End of Shutdown WP	11/23
• South BP protection	Design Done
• CM alignment stops	Design inprogress
• Reinstall BBC South	11/14
• MPC S troubleshooting	11/21
• Upgrade AH crane	10/15-11/30
• DC/PC1 East/West troubleshooting as required	11/8-11/30
• Undefined detector subsystem maintenance and repairs	7/25-11/7
• RPC3 Shielding	11/21
• RPC Hodoscope	Mech Installation Done
• Prep for EC roll in, reinstall MMS lampshade	11/28-12/9
• Roll in EC	12/12-12/16
• Prep IR for run	12/12-12/16
• BP Survey (initial survey done, next after CM moved north, final after VTX/FVTX installed	10/17-12/12
• IR run prep, Pink/Blue/White sheets	12/12-12/23
• New and upgraded full detector commissioning	9/15-1/16/2012
• Run 12 cooldown	1/17/2012

VTX/FVTX Tasks

TECHNICAL SUPPORT 2011

• FVTX/VTX Chiller leak/contamination improvements	Done
• FVTX west assembly and QA tests	Done
• FVTX west pre-survey	Done
• VTX pixel/strip pixel repairs	11/9
• VTX west re-assembly & QA tests	11/9
• FVTX east assembly and QA tests	11/9
• Move FVTX east to Chem lab	11/10
• VTX east reassembly and QA tests	11/16
• FVTX west integration with VTX west	11/11
• FVTX/VTX west half survey	11/12
• FVTX east pre-survey	11/14
• FVTX east integration with VTX east	11/17
• FVTX/VTX east half survey	11/18
• FVTX racks ready	11/18
• Install FVTX racks on bridge	11/21
• FVTX/VTX complete alignment survey in Chem. Lab	11/21-22
• Final FVTX/VTX QA tests and thermocouple wiring	11/23
• Move FVTX and VTX halves to 1008	11/28
• VTX+FVTX move to 1008	11/28-30
• Install FVTX/VTX east and west detectors	12/2
• Install FVTX/VTX services, survey and QA tests	12/9
• VTX/FVTX Commissioning & Contingency	12/9-1/16/2012

TECHNICAL SUPPORT 2011

MuTr Tasks

• Clean/install new parts and upgrades (MuTr (3 weeks, At RPC Factory)	Done
• Re-install chambers and FEE plates (1 week)	Done
• Re-install north section of bridge	Done
• Re-cable, re-hose and test (3 weeks)	Done
• Move CM north	Done
• Station 2 North (south side from station 1) new terminators and modify dry air distribution headers	Done
• Station 2 North (north side) new terminators and modify dry air distribution headers	Done
• Station 2 South (south side) new terminators and modify dry air distribution headers	Done

MuTr North & South Station 3 Re-cap clamps

• Install work platforms (north and south for capacitor clamp installation to lower octants of station 3)	Done
• Install new capacitor clamps in lower octants, Including dry air headers	(In Progress) 7/25-12/31
• Dry air manifolding to Cap clamp headers	11/21-12/31
• Re-install MMS east vertical lampshade	11/28-12/9

TECHNICAL SUPPORT 2011

RPC Tasks

• Install and test RPC1 North including all cables and plumbing	Done
• Build 1 new rack, upgrade existing RPC1 prototype rack and install on Bridge	Done
• Move CM north to run position	Done
• Install scaffolding in station 1 south	Done
• Modify BBCS cable routing	11/10
• Install RPC1 S	11/14-11/23
• Remove all scaffolding and hanging platforms	12/5
• RPC1 north and south commissioning	In progress
• RPC3 HV Distribution modifications, gas distribution modifications, PS calibration HV and services testing	7/1-12/5

Electronics Group Tasks

2011 Shutdown

TECHNICAL SUPPORT 2011

• RPC1	
• HV Cables	*Installation in progress (North done, south 11/23)*
• Signal cables	*Installation in progress (North done, south 11/23)*
• LV cables	*Installation in progress (North done, south 11/23)*
• Racks	
• Assembly	*Done*
• Install on bridge	*Done*
• RPC3 additional HV boxes	*Ready for installation*
• FVTX	
• Bias cables	*pigtails are Here; extensions due next week*
• LV cables	*Wedge cables are here, dist to mapper due next week ROC LV Cables to be terminated in-house*
• Fiber	*Control & trunk fibers and patch bays ready*
• *Mapper boards*	*ready to install*
• CMT3 and CMT4 FVTX racks	
• Assembly	*First rack is done, second rack 11/18*
• Install on bridge	*11/23*
• VTX Modify thermocouple connections	*Design & procurement done, programming needed, ready for installation*
• PC Board Designs	
• PbSc teminator board production	*here*
• New LV Dist front panels	*here*
• GL1 6X1 Multiplexer assemblies	*design finished, quotes are in*
• New MPC junction board	*prototype in layout phase*
• Dual SVX board for E. Kistenev	*next in line*
• West carriage ADAM system performance upgrade	*2 new Modbus servers under test in 1008*
• LeCroy HV control retrofit testing	*Still Waiting for doc.from Debrecen Inst*

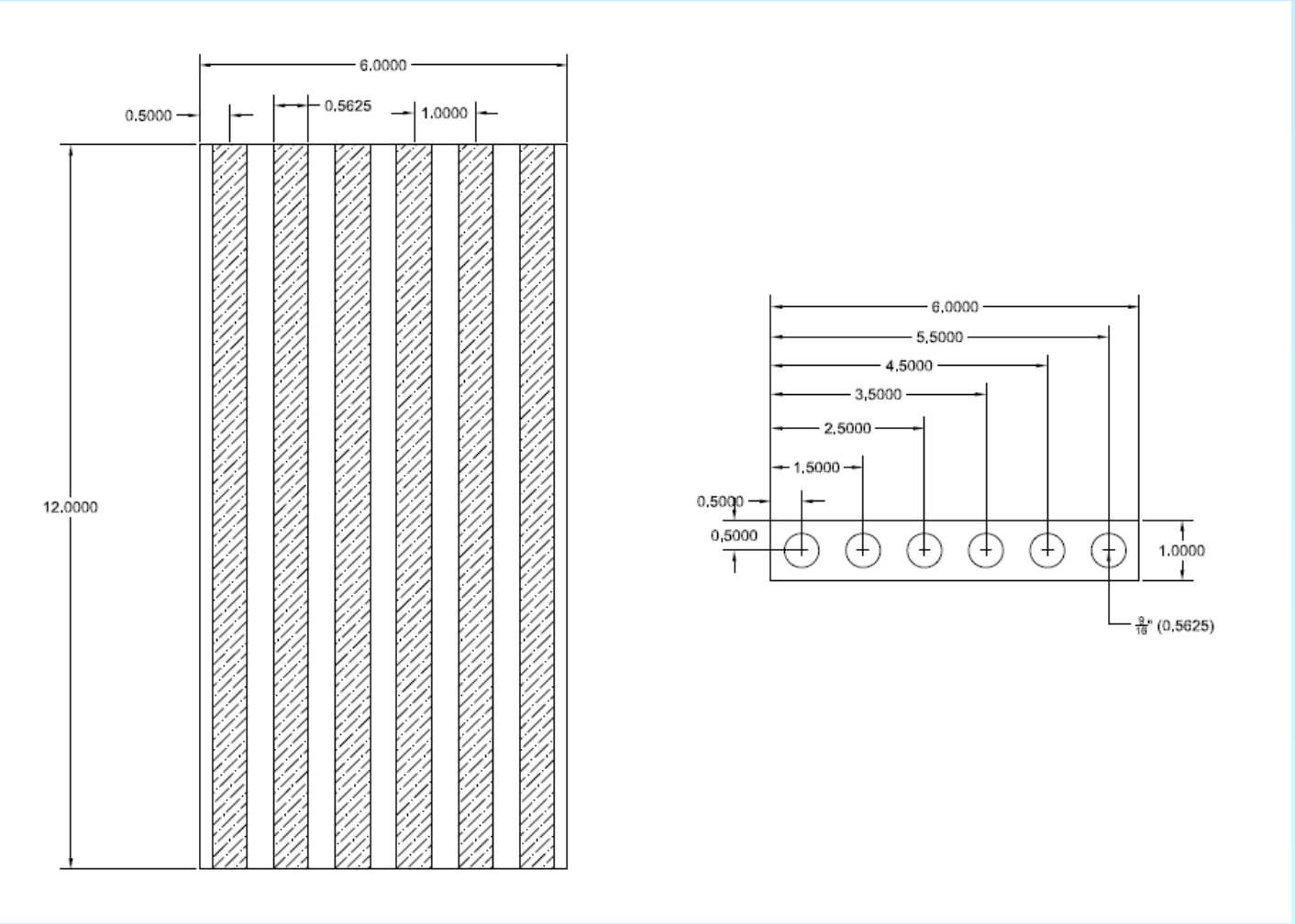
Miscellaneous Gas & Cooling System Tasks

2011 Shutdown

TECHNICAL SUPPORT 2011

- Redo bypass line on VTX/FVTX spare chiller to remove kink
- Replace MuTr flowmeters (north and south) north done south by - 12/31
- Replace tygon lines (80 line) from the cooling manifolds to the detector with 1/4" ID teflon tubing.
- Insulate whatever Big Wheel chiller lines in the IR that we can get to to reduce sweating in the IR. Lines in the assembly area are done
- Build a system to clean the Novec during the run.
- Design a way to operate the Pixel at 10C without impacting the other systems. Split off/ new chiller/ conditioning cooling lines.
- Replace all cooling system RTD transmitters (frank has parts).
- Upgrade Mutr, MuID and DC/PC computers in the gas house to run windows7 (by DEC15th)
- RPC station 1 gas panels: One built and installed. Second partially build waiting for Dave to return should be finished by end of November. Remaining instrumentation and wiring will follow after the last panel.(dec 31).
- RPC station 1 panel and bubbler built. (In progress)
- RPC Station 1 supply lines and exhaust (connecting to existing lines).
- Plumbing new supply for R134a, lines should have heat tape and insulation on exterior run.
- MuID panel circulation. Class one div 2 fans.
- Dry air for Mutr HV work.
- Dry air filters to be replaced before run starts.

TECHNICAL SUPPORT 2011

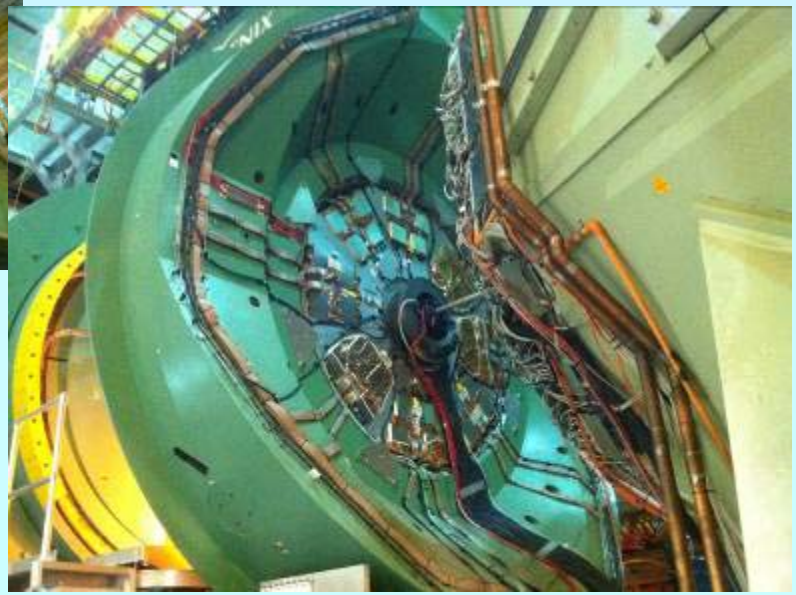


VTX Pixel pre-heater

PHENIX

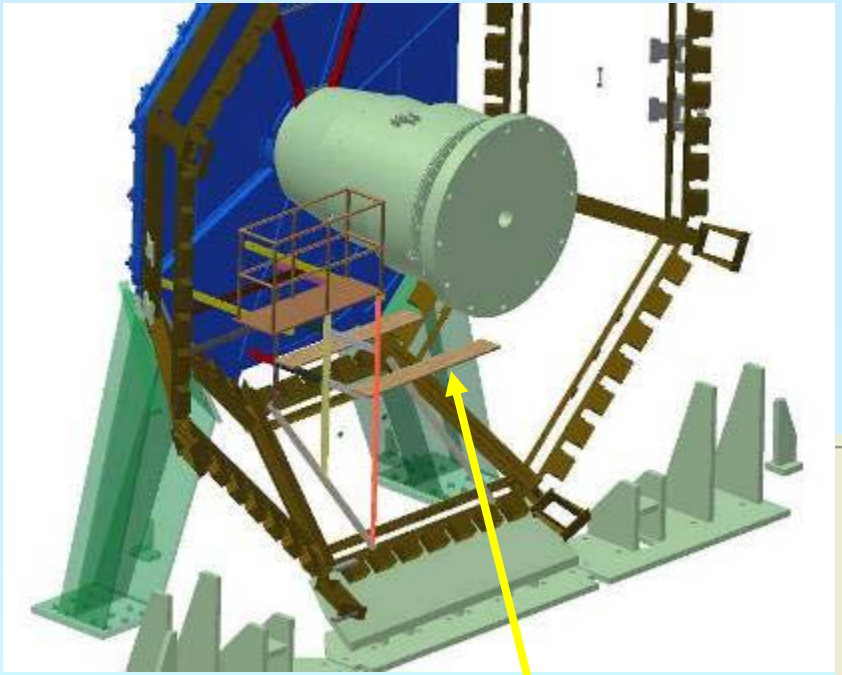
TECHNICAL SUPPORT 2011

RPC1N



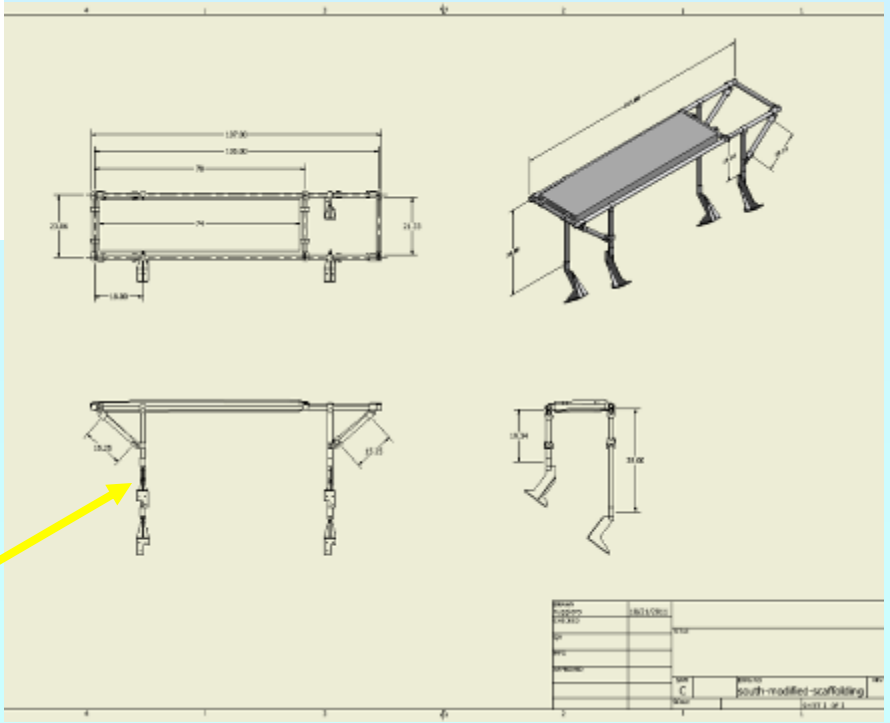
TECHNICAL SUPPORT 2011

Station 2/3 S/N Access



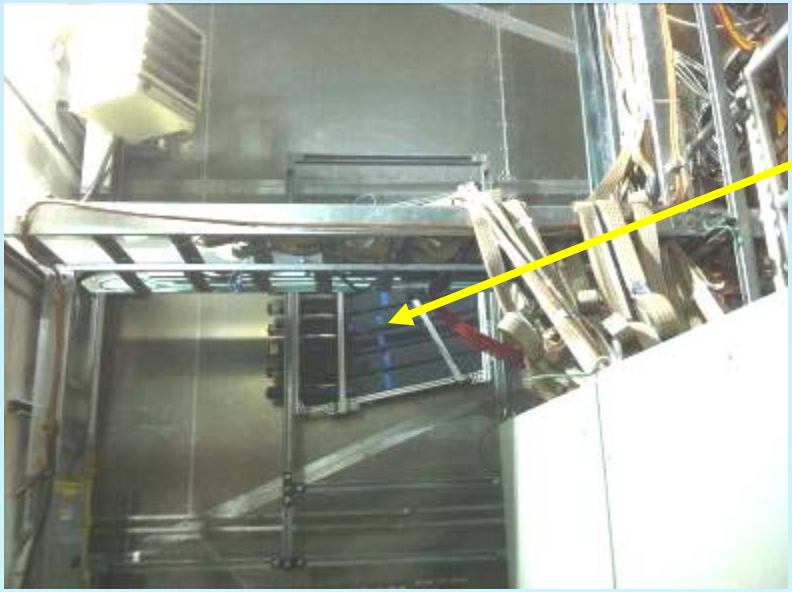
North Magnet Platform

South Magnet Platform



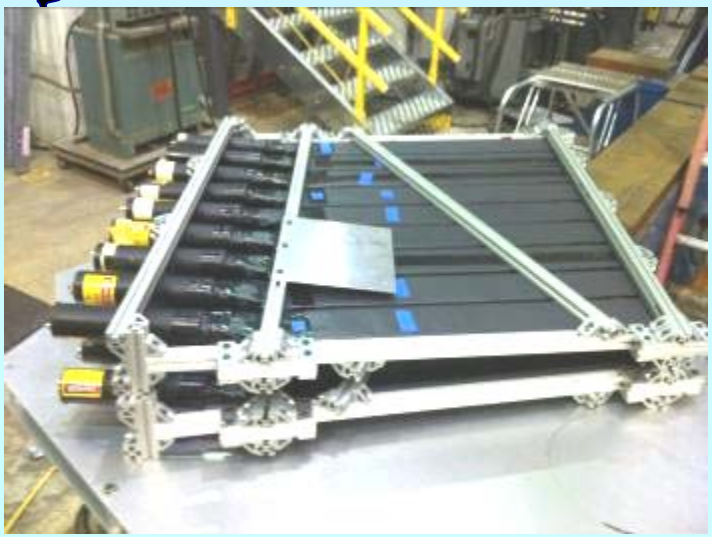
RPC Hodoscope

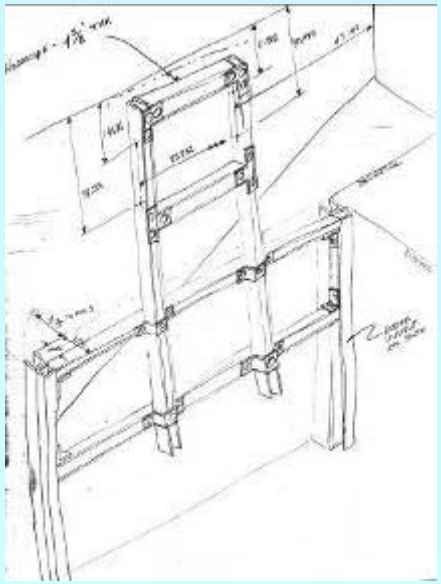
TECHNICAL SUP



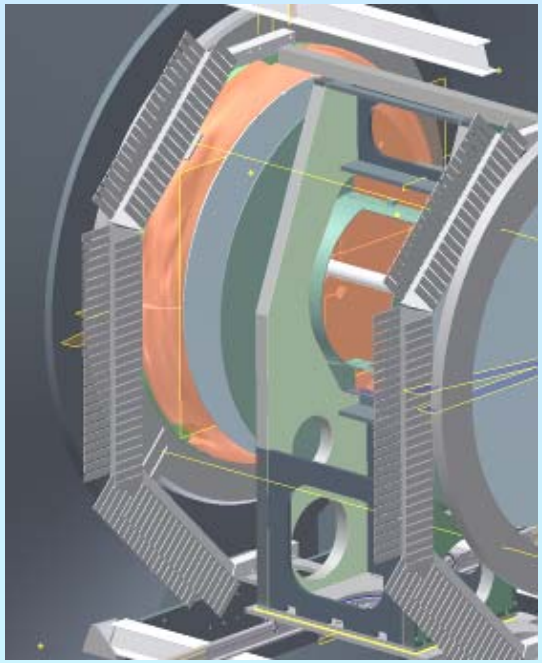
South

North

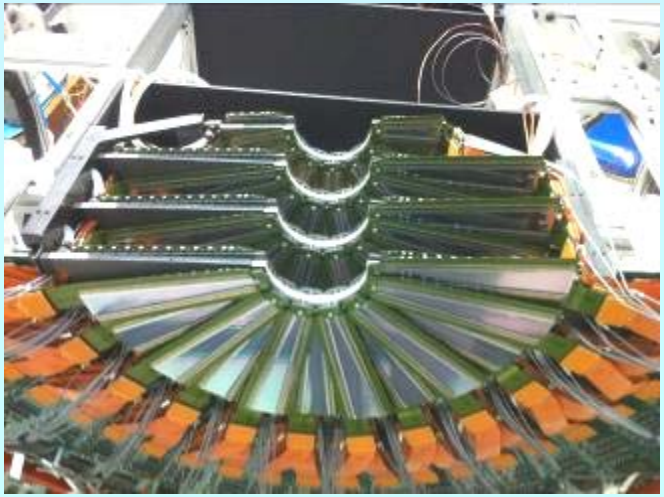




TECHNICAL SUPPORT 2011



VTX/FVTX



TECHNICAL SUPPORT 2011

TECHNICAL SUPPORT 2011

Gas Mixing House East Annex for R134A bottles close to GMH.
No heating in shed (except heating blankets), lines to be insulated. Last year heating blankets kept gas warm but long length of pipe allowed gas to liquify on coldest days.

PHENIX

TECHNICAL SUPPORT 2011

Infrastructure Issues

- Roof leaks in utility bathroom at northwest corner behind tech offices, over door between rack room and assembly hall, over door between control room and elect. ass'y room, southeast corner of IR and laser room.

- Flooding in AH/ Driveway heaving

- Electronics test/assembly room-to-parking lot door
(does not open/close/lock properly – needs to be replaced)

Safety, Security, Etc.

1. CAD Assessment of PHENIX Procedures:

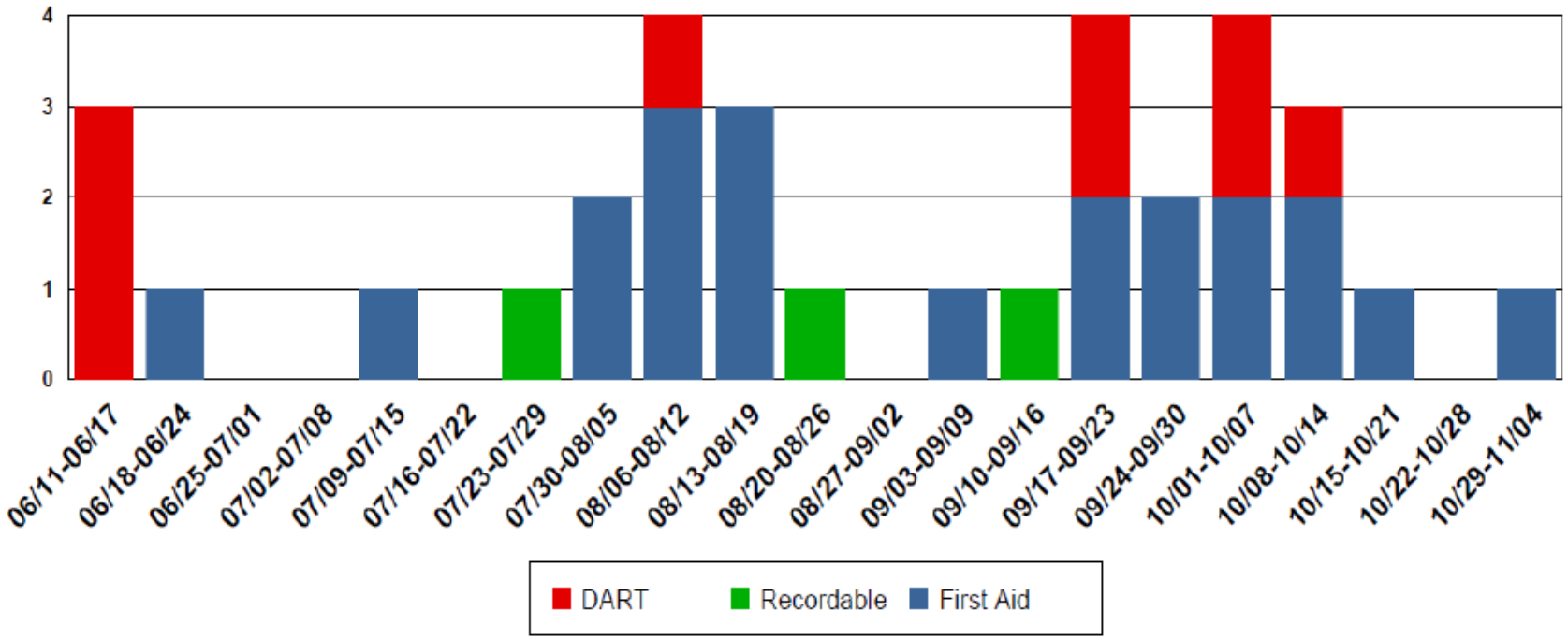
> A review of the Phenix Procedures identified in OPM chapter 11 was conducted and found to reflect current conditions. The procedure instructions within each document were clear and precise.
>
> The online Phenix Experimental Active & Current Controlled Procedures were reviewed and found to be dated within the 5 year review cycle. Prior to use, the inactive procedures are reviewed for accuracy, revised or retired.

2. From Ray Karol: The RHIC tunnel will be posted ODH 1 for run 12- training and physicals must be up to date accordingly.

3. Check your training and get your JTA's up to date.

TECHNICAL SUPPORT 2011

Injuries Per Week
As of 11/4/11



Injury Status:

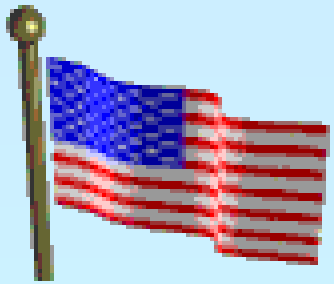
FY12: DART – 3, TRC – 3, First Aid – 6

FY11 YTD: DART – 27, TRC – 43, First Aid – 43

Recent Injuries		
11/1/11	First Aid	An employee was injured when the chair he was seated in collapsed. He was transported directly to the ER and received first aid. He returned to full duty.

Recent Events		
11/3/11	SC-2	A BSA employee received an electrical shock when he attempted to turn off the lights (actuated light switch) while exiting Building 452. The employee was not injured. However, an initial investigation by BNL electricians determined that the metal switch plate and enclosure were energized with 96 volts ac when they should have been at ground potential (0 volts). In this case, a condition existed that resulted in the unexpected discovery of an uncontrolled hazardous energy source. The Significance Category (SC) of the event was raised to SC2 based on a person contacting hazardous energy.
11/3/11	Non-reportable	At approximately 11 AM BNL Fire Rescue reported that a small quantity (< 1 gallon) of epoxy-based paint was spilled to soil near the loading dock of Building 740 (NSLS II).
11/2/11	SC-3	While constructing a floor in Building 480 a contract worker inadvertently drove a screw into a metallic sheathed, 480V ac "BX" cable causing the energized conductor to short to the grounded metallic sheath. The installed electrical protection device (circuit breaker) tripped as designed in response to the short. No one was injured and no further damage occurred.

Where To Find PHENIX Engineering Info



Lab Holiday Tomorrow: VETERANS Day

Remember to lock and secure offices and equipment for the holiday weekend

Links for the weekly planning meeting slides, archives of past meeting slides,long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm